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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,256	07/11/2001	Hisashi Ichimura	2001-0969	8989

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EXAMINER	
KUMAR, PREETI	
ART UNIT	PAPER NUMBER
1751	9

DATE MAILED: 11/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-9

Office Action Summary	Application No.	Applicant(s)	
	09/902,256	ICHIMURA ET AL.	
	Examiner	Art Unit	
	Preeti Kumar	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 September 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims 1-16 are cancelled. Claims 17-28 are pending.

2. The objections and rejections made in the previous office action are withdrawn in light of applicant's cancellation of claims 1-16.

Response to Arguments

3. Applicant's arguments with respect to claims 1-16 have been considered but are moot in light of applicant's cancellation of the claims and further in view of the new ground(s) of rejection.

New Grounds of Rejection

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 17-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically regarding the phrase, "amide I set to 1" is indefinite and unclear and the specification does not provide any guidance to this concept.

Claim Rejections - 35 USC § 102

6. Claims 17-22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hojo et al. (US 5,824,113).

Regarding claims 17 and 21-22, Hojo et al. teach that "keratin fiber" encompass body hair of land mammals including animal fibers such as wool of sheep, llama, and

alpaca. See col.3, ln.30-35. Hence these animal fibers would inherently have the same measure of shrinkproof and coefficient of friction and the other requisite components as recited by the instant claims.

Hojo et al. teach that felting is a deformation in wool, resulting from the difference in water absorbability of keratin layers and non-keratin protein layers constructing the cuticular cells which make-up the keratin fibers. See col.1, ln.15-20.

Hujo et al. teach a first step in which a –S-S- bond in an animal fiber cuticle cell is treated by primary oxidation into lower order oxidized state via a three step process whereby the –S-S- bond in the animal fiber undergoes an oxidation-reduction cleavage resulting in weakening and destroying the structure of the under-keratin layers jointed to the inside of the keratin layers. Hujo et al. teach the steps:

a) a transition metal salt impregnation step which comprises applying mechanical force to a keratin fiber, in the presence of an aqueous solution of a transition metal salt in which precipitation may easily occur by decrease of water content, change in pH or addition of ions of a metal other than the transition metal, so as to cause, due to difference in mechanical properties of the keratin layer and the non-keratin protein layer in the cuticular cells, weakening and destroying the structure of the under-keratin layers jointed to the inside of the keratin layers, and to introduce the transition metal salt solution in the under-keratin layers;

b) The keratin fiber is immersed in a bath containing oxidizing agents which are decomposed by catalytic effect of the transition metal. This catalyst precipitation step

causes precipitation and distribution of the catalyst solution for an oxidation reaction in the under-keratin layers;

c) keratin layers removing step which comprises reacting a non-chlorine base oxidizing agent with the keratin fiber under catalytic effect of the transition metal to cause a rapid reaction at the under-keratin layers so that the keratin layers may be removed from the under-keratin layers and the non-keratin protein layers may be exposed; See abstract and col.3, ln.1-30.

Hojo et al. teach that suitable oxidizing agents may be hydrogen peroxide, monopersulfuric acid, hydrogen persulfates, performic acid, and peracetic acid and the salts thereof. See abstract and col.4, ln.30-35.

In examples 3 and 6, Hojo et al. illustrate the use of a NaCO3 aqueous solution and the use of NaOH for the purpose of removing the water repellent keratin scales. The examiner asserts that the teachings of Hojo et al. illustrate removal of the keratin layer and the OPTIONAL removal of the under-keratin layer the property of water repellency is not wanted in the fabric. Please see examples 3 and 6 and part c) in col.3.

Hojo et al. teach that the animal fiber can be used as a cloth or a sliver in example 1 where Hojo et al. illustrate the use of a sliver of Merino wool which has been subject to a three step oxidation decomposition process. See example 1. Also, example 1 illustrates a washing test defined by JIS L0217-103 for 20 times, where aerial shrinkage percentage was measured. The values obtained were within 3%, which proved a high shrink proof effect of the oxidation-treated wool. See col6, ln.40-45.

Accordingly, the teachings of Hojo et al. are sufficient to anticipate the material limitations of the instant claims.

Alternatively, even if the broad teachings of Hojo et al. are not sufficient to aniticipate the material limitations of the instant claims, it would have been nonetheless obvious to one of ordinary skill in the art, at the time the invention was made, to arrive at the required animal fiber having a specific rate of shrinkage, coefficient of friction, and degree of oxidation of a cystine bond, since Hojo et al. teach a method of modifying animal fiber such as wool of sheep, llama, and alpaca and these fibers would inherently have the same rate of shrinkage, coefficient of friction, and degree of oxidation of a cystine bond as recited by the instant claims.

Claim Rejections - 35 USC § 103

7. Claims 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hojo et al. as applied to claims 17-22 above, and further in view of Thorsen (US 4,189,303).

Hojo et al. are relied upon as set forth above. However, Hojo et al. do not specifically teach treatment by oxidation with ozone and the use of the pad steam method.

Thorsen teaches a method for treating proteinaceous materials that contain disulfide or polysulfide bonds, such as wool, with ozone to impart shrinkproofing properties. See abstract; col.1, ln.1-15. Thorsen illustrates the treatment of animal fibrous materials such as wool and mohair or blends of these fibers with any other type of fiber. These materials may be in any of various physical forms, e.g., bulk fibers,

slivers, roving, top, yarns, felts, woven textiles, knitted textiles, or even garments or garment parts. See col.4, ln.1-10. In example 1-3, Thorsen illustrates proteinaceous fibers contacted with a steam-ozone mixture. Further more, Thorsen teach many benefits of treating dampened wool sliver with ozone such as, the process is simple and inexpensive because of the low cost of ozone and results in a wool material that is machine washable. Please see the conclusions on page 303.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, incorporate the use of steam-ozone as an oxidizer as taught by Thorsen, in the animal fiber treatment method disclosed by Hojo et al., with a reasonable expectation of success and similar results because the teachings of Thorsen illustrate the benefit of treating wool with for excellent washability and shrinkage control of wool and further, Hojo et al. teach an oxidization decomposition process for the treatment of animal fiber.

Double Patenting

8. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

9. Claims 23-28 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-7 of copending Application No. 09/721772. This is a

provisional double patenting rejection since the conflicting claims have not in fact been patented.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 703-305-0178. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 703-308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-872-9309.

Preeti Kumar
Examiner
Art Unit 1751

PK
November 25, 2002

YOGENDRA N. GUPTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700